

26 November 1975

MEMORANDUM FOR THE RECORD

SUBJECT: Project ORACLE, [ ] Preshipment  
Acceptance Test

STATINTL

The [ ] Preshipment Acceptance Test was held for seven successive days over the period 19 November through 25 November 1975. There were 20 test periods, all of them failed.

STATINTL

The test exercised both the software and hardware of the Mass Storage System in conjunction with a host computer, an IBM 370/155. The functions tested were mutually agreed to by [ ] and the Agency on 3 July 1975. All individual tests but one were submitted in advance of the test period to [ ]. The test set was delivered on 25 August 1975 and a revised set was delivered on 20 October 1975. The tests actually run during the period differed from those previously submitted to [ ] only in that the data content of the files had been altered. Altering the data content had no impact on the functional aspects of the test, it simply precluded any kind of pre-arrangement on the part of [ ].

STATINTL

STATINTL

STATINTL

STATINTL

The acceptance test was conducted by the Agency, [ ] personnel were present as observers. The Agency decided what functions were to be tested in a given period and in what sequence the individual tests were to execute. Agency personnel alone made the decision as to whether a test period was a failure or a success. Criteria used to determine success or failure of functional tests were based solely on the Mass Storage System Design (Specification) dated 19 March 1975. Whenever a test period ended because the system stopped processing, it was simply declared a failure. The Agency did not attempt to diagnose the cause as either hardware or software.

During each test period, the Agency had complete control of the system. At the end of a test period control was returned to [ ]. After each test period, all events were reviewed, an evaluation of the test was made and then presented to [ ]. Finally, a brief written summary of the test period was given to [ ].

STATINTL

ILLEGIB

STATINTL [ ] which served to notify them of the results. We  
also retained the blow-by-blow detail in the form of  
machine console logs, printer output from the host  
computer, and handwritten logs of events that took  
place during each test. A new test period would be  
STATINTL started only when [ ] declared the system was ready  
and returned control to the Agency. Any changes made  
STATINTL by [ ] were noted so that we could determine if  
any tests needed to be rerun.

STATINTL It is important to note that the nature of all  
the failures were clear-cut. It was not necessary  
to make any intensive studies of the specifications  
to probe for subtle interpretations. The failures  
encountered during the tests were both hardware and  
software related. [ ] did not question any of the  
test evaluations.

There were two serious types of failures. The  
first was the inability of the Mass Storage System  
to move some files from disk to the TBM Tape. These  
same files could be manipulated successfully from the  
host computer. The second failure was the inability  
of the system to move some files from TBM Tape to disk.  
The specification and the system design assumes this  
latter problem will occur once for each 2.5 billion  
characters of data. The test results showed a rate  
of 50 occurrences for each 2.5 billion characters.

Because of the short duration of the acceptance  
test and the limited number of functions being tested,  
the system should look better than it really is. Using  
this for a guideline and considering the poor quality  
revealed by the test, it is my judgement that [ ]  
is not over half way done with the Mass Storage System.

STATINTL

[ ]

COTR

STATINTL